

first detected, and then continues its search; but masking out the area within the outlined structure from further searching. (Hennessey, column 5, line 19 through column 6, line 48.)

Additionally, Applicants submit that Hennessey discloses creating a reference structure grammar for a defect-free unit, and a structure grammar for a production unit. The grammars are constructed from searching the digitized captured image. The grammars are a collection of primitives, a unit of image information, which for a line contains a start point, an end point, and the light intensities to the left and to the right of the line. The reference structure grammar and the production structure grammar are then compared primitive by primitive.

Claim 1 recites the steps of “repetitively scanning a light beam in a linear pattern on a first work” and “storing reference images of said linear pattern on said first work, together with related information about positions of said light beam to produce a first matrix value at each position of said light beam.” Claim 1 also recites repeating these steps for a second work, where the first work is a reference work and the second work is an inspected work. The present invention repetitively scans a light beam and stores reference images along with information about light beam positions. In contrast, Hennessey merely discloses illuminating a structure and capturing a photographic image that is digitally stored.

Further, claim 1 recites “finding a set of differences between each element of said first matrix and each corresponding element of said second matrix.” Claim 1 recites that each element of a matrix corresponds to each position of the light beam. In contrast, Hennessey discloses comparing primitives, where the primitives contain a start point and an end point defining a line, and the light intensities to the left and to the right of the line. Thus, Hennessey does not compare matrix elements which correspond to each position of the light beam.

Independent claims 4 and 5 recite similar features as claim 1, and Applicants submit that claims 4 and 5 are patentable over Hennessey for at least the foregoing reasons. Claim 6 depends from claim 5, and is submitted to be patentable over Hennessey for at least the same reasons as claim 5. Therefore, Applicants request withdrawal and reconsideration of the rejection.

Rejection Under 35 U.S.C. § 103

Claim 2 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Hennessey in view of U.S. Patent No. 5,680,207 to Hagiwara. Applicants respectfully traverse the rejection.

The Examiner contends that Hennessey disclose all the features of claim 2 with the exception of rotating a scanning mirror about an axis. However, the Examiner contends that Hagiwara discloses rotating a scanning mirror about an axis and states it would have been obvious for a person of ordinary skill in the art at the time of the invention to combine Hennessey with Hagiwara.

Applicants submit that claim 2 depends from claim 1 and for the reasons explained in the previous section, Hennessey does not disclose the features discussed above. Hagiwara does not disclose any matter, which when combined with Hennessey overcomes these deficiencies. Therefore, Applicants submit that the combination of Hennessey and Hagiwara does not disclose or suggest the present invention. Withdrawal and reconsideration of the rejection is requested.

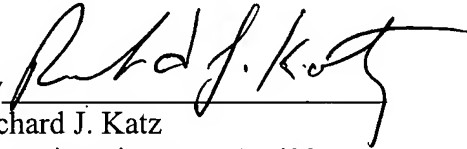
CONCLUSION

Each and every point raised in the Office Action dated September 3, 2003 has been addressed on the basis of the above amendment and remarks. In view of the foregoing it is believed that claims 1-6 are in condition for allowance and it is respectfully requested that the application be reconsidered and that all pending claims be allowed and the case passed to issue.

If there are any other issues remaining which the Examiner believes could be resolved through a Supplemental Response or an Examiner's Amendment, the Examiner is respectfully requested to contact the undersigned at the telephone number indicated below.

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Respectfully submitted,

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